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ABSTRACT

Eysenck's theory that variations in resistance-to-temptation (i.e., RTT) behavior are contingent on 2 basic personality dimensions -- introversion-extroversion and neuroticism -- which produce differences in conditionability was evaluated in a punishment paradigm with adolescent boys. Measures of manifest anxiety, self-control, and internal-external control were also obtained for each subject. Correlations between introversion-extroversion and RTT were non-significant. Similarly, non-significant relationships emerged for neuroticism, self-control, manifest anxiety, internal-external control and RTT. However, ordinal position was found to be a significant factor indicating that socialization practices with individual children are a more valid predictor of moral conduct than various personality traits. (Author)

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Individual Differences in Resistance-to-Temptation Behavior in Adolescents: An Eysenck Analysis [1,2]

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While psychologists with a learning orientation have been interested in the effect of individual differences on personality patterns for a number of years, such data on resistance-to-temptation (i.e., RTT) or self-controlled behavior in children and adolescents is conspicuously lacking in the punishment literature. However, evidence of wide variations in deviant behavior dates back to the early research on character education conducted by Hartshorne and May (1928). Their studies showed not only that non-cheaters tended to be more cautious than cheaters but individual concern with group approval greatly influenced resistance-to-temptation.

Subsequent investigations of resistance-to-temptation behavior have also found individual differences to be an important factor. The confounded resistance-to-temptation measure (i.e., cheating behavior) in the Burton, Maccoby and Allinsmith (1961) and Grinder (1962) studies attributable to differences in desire for a prize and motivation to cheat, Mischel and Staub's (1965) finding that differences in expectancy of success greatly influenced delay of gratification among eighth grade boys, and Grim, Kohlberg and White's (1968)

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observation that measures of attention influence inhibition of cheating, ostensively point to the pervasiveness of individual variation in resistance-to-temptation behavior. Kohlberg (1964) has also reported divergence in moral reasoning which appears to be the result of variations in events, and control over fantasy.

Several empirical studies attest to the presence of individual differences in resistance-to-temptation behavior, but there is little or no evidence to suggest that variation in reaction to parental punishment, a commonly assumed antecedent of RTT, affects inhibition. However, this is a reasonable assumption from a social learning perspective since resistance-to-temptation is essentially avoidance learning associated with parental punishment. Thus, individual differences in reaction to punishment should differentially affect resistance-to-temptation because the child learns to inhibit deviant behavior in order to avoid the anxiety associated with prior parental punishment for a specific deviant act. This is essentially the position taken by Eysenck (1960) in his learning theory explanation for individual differences in moral conduct. Eysenck's theory suggests that resistance-to-temptation can be considered a conditioned anxiety response to certain types of stimulation such as punishment. Therefore, variations in resistance-to-temptation result from differences in conditionability which is a function of two basic personality dimensions -- introversion-extroversion and neuroticism (i.e., level of anxiety). Differences in conditionability, according to Eysenck (1957), result from variations in coitical excitation

and inhibition which are assumed to be genetically determined.

Based upon these assumptions, Eysenck (1960) predicts that introverts and highly anxious (i.e., neurotic) individuals should condition more rapidly as a result of punishment. Although there is little empirical evidence to test this prediction, a study by Stoudenmire and Mehearg (1969) casts some doubt on its validity. Stoudenmire and Mehearg found that extroverts rather than introverts tended to have a higher level of superego development as measured by the G factor on the Sixteen Personality Factor Questionnaire. But, this result should be interpreted with caution since guilt was assessed by a paper and pencil test rather than a behavioral measure, and guilt appears to have little relationship to resistance-to-temptation.

Eysenck (1960) further predicts that resistance-to-temptation behavior should be minimally influenced by intelligence since it is generally unrelated to differences in conditionability. However, Kohlberg (1964, 1969) has reported sizeable correlations (i.e., r = .20 to .50) between intelligence and moral reasoning, while Aronfreed (1961) found that intelligence had no effect on self-corrective responses.

Other individual differences with respect to demographic characteristics may also influence resistance-to-temptation associated with fear of punishment. One such factor appears to be birth order. In their study of childrearing patterns, Sears, Maccoby and Levin (1957) reported that first-born children had more strongly developed consciences. Storer (1961), on the other

hand, found this relationship to be strongest for first-born males. One explanation for the differences in conscience level is that of differential childrearing practices. First-borns seem to experience greater restrictiveness, less permissiveness, less warmth and approval, and less protectiveness (Sampson, 1965). In addition, the Sears et al (1957) study noted that first-borns received more physical punishment.

The foregoing review points to specific factors which may differentiate among those individuals who can effectively inhibit deviant behavior and those who succumb to temptation. However, there is little empirical data to evaluate the differences in conditionability which are assumed to influence punishment effectiveness, and thus mediate resistance-to-temptation. Further, previous research on resistance-to-temptation has employed such measures as tests of cheating which are confounded with incentives for a prize and motivation to cheat, thus preventing a valid test of inhibition.

The purpose of the present study was twofold: to test Eysenck's predictions with respect to differences in conditionability, and to investigate the relationship of other individual differences data to a behavioral measure of resistance-to-temptation obtained in a punishment paradigm which permitted an achievement free measure of inhibition.

The following predictions were made: (1) adolescents classified as introverts on the Eysenck scale show greater resistance-to-temptation; (2) adolescents scoring high on the neuroticism scale demonstrate more inhibition; (3) level of

intelligence is not significantly related to resistance-to-temptation; (4) first-born males are more resistant to temptation.

Method

Subjects

Eighty middle-class boys 14 to 16 years of age participated in the study. All subjects were from intact families and randomly selected from the freshman and sophomore enrollments of two public high schools.

Procedure

Each subject was administered the Eysenck Introversion-Extroversion Scale; the Self Control Scale of the California Psychological Inventory which measures self regulation, self-control, and freedom from impulsivity; the Manifest Anxiety Scale; and the Rotter Internal-External Control Scale which assesses the extent to which one perceives events as being a consequence of one's own action and thus controllable or unrelated to one's own behavior and uncontrollable. Birth order data and a measure of intelligence were also obtained for each subject.

The resistance-to-temptation (RTT) data for each subject was taken from a previous study (LaVoie, 1970) using the standard punishment paradigm. In this paradigm the subject was punished by one of his randomly selected parents for making prohibited object choices in a punishment training task. The specific task consisted of selecting one object

from each of six pairs of interesting objects. Four of the subject's object selections were punished by the parent (i.e., either the mother or the father). The punishment for one group of subjects consisted of aversive stimulation (i.e., a two sec. 104 db noise from an adaptahorn); a second group received reasoning (i.e., a rationale explaining why the subject should not handle the prohibited objects); a third group of subjects was punished with aversive stimulation followed by reasoning; while a fourth group served as a control and received no punishment for their object choices. Following the punishment training, the subject was left in the experimental room with the four prohibited objects which he had selected and his actions were monitored on closed circuit television by a neutral observer during a 30-minute resistance-to-temptation test period. The extent of deviation was measured in terms of latency to first deviation, frequency of deviation, duration of deviations, average duration per deviation, time attending to the prohibited objects, and proportion of time deviating.

Results

A within cell correlational analysis (Winer, 1962) was used to analyze the data. Subsequent chi-square analyses evaluated the association between deviation-nondeviation and high and low scores on each of the scales.

Only two of the four predictions made in the study were confirmed. The correlations for the individual difference factors and the six RTT measures are presented in Table 1.

Ordinal position was significantly related to three of the RTT measures, while the other correlations were in the predicted

INSERT TABLE 1 ABOUT HERE

direction but non-significant. This correlational pattern suggests that first and early born subjects were less deviant than later borns. Eysenck's assumption that intelligence is unrelated to inhibitory behavior was supported. The correlations between IQ and the six resistance-to-temptation measures were non-significant and generally infinitesimal.

Contrary to Eysenck's predictions neither introversion-extroversion nor level of anxiety, as measured on two separate scales, correlated significantly with the RTT measures, which suggests that conditionability in punishment is minimally associated with level of RTT. There was also little evidence that paper and pencil measures of self-control or locus of control (i.e., internal-external control) have any utility in predicting resistance-to-temptation in a behavioral test.

Chi-square analyses were used to obtain a qualitative comparison between deviators and non-deviators in the RTT test and scores on introversion-extroversion, neuroticism, manifest anxiety, self-control, and internal-external control. The data presented in Table 2 indicates that deviators and non-

INSERT TABLE 2 ABOUT HERE

deviators did not differ significantly in terms of classification as introvert-extrovert, high or low anxiety, or internal-

external controlled. Scores on the self-control scale also failed to discriminate between the two groups.

Discussion

The present study provides little empirical evidence to support the predictions based on Eysenck's (1960) theory that parental punishment would differentially affect the inhibitory behavior of introverted-extroverted and high or low anxiety adolescent males. While personality differences may influence an individual's conditionability, this does not appear to be the case with respect to punishment. Further, the relationships between conditionability and introversion-extroversion reported in other research have been of a very low magnitude. Paul (1966), for example, found only one of thirty-six correlations between introversion-extroversion and measures of counterconditioning of public speaking anxiety to be significant. In his discussion of this issue, Mischel (1968) has proposed that responsiveness to the learning situations is probably situation specific rather than contingent on personality traits. If this holds true for punishment effectiveness, the specific factors which seem to be important are timing, intensity, reasoning or explanation, sex of the punitive agent, and possibly the affectional relationship between the punitive agent and recipient (Hoffman, 1970; LaVoie, 1970).

Intellectual ability appears to be another non-significant factor mediating inhibition of deviant behavior following the administration of punishment. This also may be a function of

situational specificity. The research which has found significant effects due to IQ has either employed cheating measures of resistance-to-temptation (e.g., Hartshorne & May, 1928) or focused on the cognitive aspects of moral development or moral judgment (e.g., Kohlberg, 1969). However, there is some indication that cognitive ability restricts the effectiveness of reasoning types of punishment with children of kindergarten age or younger but not third graders (e.g., Cheyne, 1969).

This suggests that stage of cognitive development is an influential factor in punishment only with preschool children. At this age brighter children should exhibit greater inhibition of deviant behavior as a result of punishment since they are more capable of processing the requisite information inherent in punishment, especially when the punishment assumes the form of reasoning. Once the child has reached the stage where cognition directs behavior then differences in cognitive ability (i.e., intelligence) are of no consequence to the inhibitory effectiveness of punishment. Such an assumption gains further support from the non-significant relationship between IQ and RTT in the present study.

It would appear that a major portion of the variance in resistance-to-temptation behavior may be accounted for by specific socialization practices with individual children. The correlational pattern for ordinal position which emerged in this study suggests that early born children exert more self-control. But, the antecedent rearing experiences associated with this more stringent inhibition are a matter

of conjecture. Some of the ordinal position research reviewed by Sampson (1965) indicates that first-borns experience much inconsistency in their socialization because of anxious parents who tend to be cautious and somewhat overprotective, yet demanding independence and adult-like behavior, thus producing a dependent, anxious, and cautious child. But other studies suggest that first-borns are reared more restrictively, given less warmth and attention, and experience more physical punishment and deprivation of privileges (Sampson, 1965; Sears, Maccoby & Levin, 1957). The socialization picture emerging from these conflicting sources is one of restrictiveness, punitiveness, and overprotectiveness. However, there is no empirical evidence to suggest that a restrictive-punitive childrearing milieu enhances the development of resistance-to-temptation. LaVoie and Looft (1971), for example, found no relationship between parental restrictiveness and self-control in adolescent boys.

A more feasible interpretation of the relationship between ordinal position and resistance-to-temptation is that first-born and older children are often placed in adult-like roles and receive more training in adult role behavior. While all children acquire some aspects of parental role behavior, Maccoby (1961) has suggested that children will differ in the amount of parental behavior they learn, and the differential factor is probably the amount of practice they receive. When the family is small, parents have more time to interact with the child. This increased interaction provides greater opportunity for the child to learn many of the adult role

behaviors that characterize his parents, such as setting rules, applying discipline, and controlling resources. Therefore, one would expect first and older born children to be more capable of inhibiting deviant behavior.

Not to be overlooked is the greater saliency of the parent as a model for the first born and older child. This increased attractiveness of the parent can be attributed to several factors. Because of his status as a first or only born, this child probably receives more parental attention. Such interaction necessarily provides a context for nurturance and affection, both of which have been demonstrated to increase imitative behavior in an experimental situation (e.g., Bandura & Huston, 1961). A second factor is that of perceived similarity. Since first and older born children tend to select the parent surrogate role according to Sutton-Smith, Roberts and Rosenberg (1964), one would expect this child to find the parent role model attractive and worthy of emulation Therefore, the child might very well rationalize "I want to be a parent, therefore I will act like a parent." This desire to model parental behavior should result in more mature actions by the child and inhibition of deviant behavior (Maccoby, 1959).

In essence, the birth order relationship suggests that first and older born adolescent males tend to display greater resistance-to-temptation because their past socialization has emphasized the taking of adult roles which involves more mature behavior. But the assumption of the parent surrogate role by the older child and the attention given this child by the parent also facilitates the incorporation of the adult

role through modeling. Further support for this position can be found in the present study in that the correlations between the various personality measures and RTT behavior were non-significant. This lack of relationships suggests that paper and pencil measures which presume to tap self-control have little utility in predicting individual moral conduct as a consequence of punishment. Rather, specific socialization practices with individual children appear to be a more valid prognosticator.

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Footnotes

[1]An earlier version of this paper was presented at the Annual Meeting of the Midwestern Psychological Association, Detroit, May 1971. The author would like to express his appreciation to the families in the Verona and Stoughton, Wisconsin school districts who participated in the study; to Lloyd Hornback and Charles Martin, principals of the respective high schools involved; to Fran LaVoie for her assistance in data collection; and to William R. Looft for his many helpful comments on earlier drafts of this paper.

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Table 1

Correlations of Six Resistance-to-Temptation Measures and Eight Personality, Intellectual and Demographic Measures

RTT Measures	Self Control	Introversion-Extroversion	Neuroticism	Taylor Manifest Anxiety Scale	Lie Scale	Internal-External Scale	IQ	Ordinal Position
Latency of First Deviation	-.001	-.15	.12	.08	-.17	-.10	.03	-.09
Frequency of Deviations	-.09	.17	.01	-.02	.22*	.04	.01	.10
Duration of Deviations	-.08	.01	.16	.10	-.02	-.02	-.07	.35***
Average Length of Deviations	.11	-.15	-.03	.09	-.06	-.06	-.17	.22*
Time Attending to Test Objects	-.09	.15	-.01	-.09	.07	.15	.04	-.11
Percent Time Deviating	-.09	.06	.14	.15	.02	.04	-.06	.29**

*p < .05
**p < .01
***p < .005

Table 2

A Comparison of Deviators and Non-deviators

in the RTT Test on Five Personality Scales

Personality Scale	Deviator	Non-deviator	X^2
Introversion-Extroversion			.02
Introvert	11	14	
Extrovert	16	19	
Neuroticism			1.68
High	11	19	
Low	16	14	
Manifest Anxiety			.03
High	10	13	
Low	17	20	
Self Control			.09
High	10	11	
Low	17	22	
Internal-External Control			.01
Internal	11	13	
External	16	20	